
DIMENSIONS OF THE BUDGET

20. COMPARISON OF ACTUAL TO ESTIMATED TOTALS

In successive budgets, the Administration publishes several estimates of the surplus or deficit for a particular fiscal year. Initially, the year appears as an outyear projection at the end of the budget horizon. In each subsequent budget, the year advances in the estimating horizon until it becomes the “budget year.” One year later, the year becomes the “current year” then in progress, and the following year, it becomes the just-completed “actual year.”

The budget is legally required to compare budget year estimates of receipts and outlays with the subsequent actual receipts and outlays for that year. Part I of this chapter meets that requirement by comparing the ac-

tual results for 2005 with the current services estimates shown in the 2005 Budget published in February 2004.

Part II of the chapter presents a broader comparison of estimates and actual outcomes. This part first discusses the historical record of budget year estimates versus actual results over the last two decades. Second, it broadens the focus to estimates made for each year of the budget horizon, extending four years beyond the budget year. This broader focus shows that the differences between estimates and the eventual actual results grow as the estimates extend further into the future.

PART I: COMPARISON OF ACTUAL TO ESTIMATED TOTALS FOR 2005

This part of the chapter compares the actual receipts, outlays, and deficit for 2005 with the current services estimates shown in the 2005 Budget published in February 2004.¹ This part also presents a more detailed

comparison for mandatory and related programs, and reconciles the actual receipts, outlays, and deficit totals shown here with the figures for 2005 previously published by the Department of the Treasury.

Receipts

Actual receipts for 2005 were \$2,154 billion, \$117 billion more than the \$2,037 billion current services estimate in the 2005 Budget (February 2004). As shown in Table 20–1, this increase was the net effect of legislative and administrative changes; economic conditions that differed from what had been expected; and technical factors that resulted in different collection pat-

terns and effective tax rates than had been assumed. In the interest of cautious and prudent forecasting, the February 2004 estimate included a downward adjustment beyond what the economic and receipts models were forecasting. This adjustment, which was not distributed by source of receipt, reduced the estimate of 2005 receipts by \$15 billion.

Table 20–1. COMPARISON OF ACTUAL 2005 RECEIPTS WITH THE INITIAL CURRENT SERVICES ESTIMATES

(In billions of dollars)

	February 2004 estimate	Enacted legislation/administrative actions	Different economic conditions	Technical factors	Net change	Actual
Individual income taxes	882	–16	13	48	45	927
Corporation income taxes	222	–2	–26	84	56	278
Social insurance and retirement receipts	794	.....	8	–8	*	794
Excise taxes	73	2	–*	–2	–*	73
Estate and gift taxes	21	2	*	2	3	25
Customs duties	22	–*	1	–*	1	23
Miscellaneous receipts	37	*	1	–4	–4	33
Adjustment for revenue uncertainty	–15	.....	.....	15	15	.....
Total receipts	2,037	–14	–3	134	117	2,154

* \$500 million or less.

¹The current services concept is discussed in Chapter 24, “Current Services Estimates.” For mandatory programs and receipts the February 2004 current services estimate was based on laws then in place, adjusted to reflect extension of certain expiring provisions

in the 2001 and 2003 tax acts. For discretionary programs the current services estimate is based on the current year estimates, excluding one-time emergency appropriations, adjusted for inflation.

Policy differences. Certain provisions in the 2001 and 2003 tax cuts were assumed to be extended in the February 2004 current services estimates. These provisions, which included tax rate reductions, marriage penalty relief, and increases in the child tax credit, reduced the current services estimate of 2005 receipts by \$12 billion. These provisions were extended in the Working Families Tax Relief Act of 2004. Other legislated tax changes after February 2004 that affected 2005 receipts included the Pension Funding Equity Act and the American Jobs Creation Act of 2005. In total, these legislated tax changes reduced 2005 receipts by \$26 billion, which was \$14 billion more than the \$12 billion in tax reductions already reflected in the current services estimates.

Economic differences. Differences between the economic assumptions upon which the current services estimates were based and actual economic performance accounted for a reduction in 2005 receipts of a net \$3 billion. Higher than anticipated wages and salaries and other sources of personal income were in large part responsible for the increases in individual income taxes and social insurance and retirement receipts of \$13 billion and \$8 billion, respectively. These increases were more than offset by a \$26 billion decrease in corporation income taxes, attributable to lower-than-expected corporate profits.

Technical reestimates. Technical factors increased 2005 receipts by a net \$134 billion above the February 2004 current services estimate. This net increase was primarily attributable to higher-than-anticipated collections of individual and corporation income taxes of \$48 billion and \$84 billion, respectively. Different collection patterns and effective tax rates than assumed in February 2004 were primarily responsible for the higher-than-anticipated collections of individual and corporation income taxes. Higher-than-anticipated collections of estate and gift taxes increased 2005 receipts an additional \$2 billion above the February 2004 estimate.

Lower-than-anticipated collections of other sources of receipts of nearly \$15 billion were in large part captured by the adjustment for revenue uncertainty, resulting in no net effect on receipts, relative to the February 2004 estimate.

Outlays

Outlays for 2005 were \$2,472 billion, \$75 billion more than the \$2,397 billion current services estimate in the 2005 Budget (February 2004).

Table 20–2 distributes the \$75 billion net increase in outlays among discretionary and mandatory programs and net interest.² The table also makes rough estimates according to three reasons for the changes: policy; economic conditions; and technical estimating differences, a residual.

Policy changes are the result of legislative actions that change spending levels, primarily through higher or lower appropriations or changes in authorizing legislation, which may themselves reflect responses to changed economic conditions. For 2005, policy changes increased outlays by an estimated \$57 billion relative to the initial current services estimates.

Policy changes increased discretionary outlays by \$50 billion. Defense discretionary outlays increased by \$39 billion and nondefense discretionary outlays increased by \$10 billion. A significant portion of both defense and nondefense outlay increases resulted from enactment of the Emergency Hurricane Supplemental Appropriations Acts in 2004 and the Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Tsunami Relief in 2005. Policy changes increased mandatory outlays by \$6 billion above current law. Drought and other aid to farmers enacted in one of the Emergency Hurricane Supplemental Appropria-

² Discretionary programs are controlled by annual appropriations, while mandatory programs are generally controlled by authorizing legislation. Mandatory programs are mostly formula benefit or entitlement programs with permanent spending authority that depend on eligibility criteria, benefit levels, and other factors.

Table 20–2. COMPARISON OF ACTUAL 2005 OUTLAYS WITH THE INITIAL CURRENT SERVICES ESTIMATES

(Outlays in billions)

	Current Services (Feb. 2004)	Changes				Actual
		Policy	Economic	Technical	Total changes	
Discretionary:						
Defense	439	39	.....	15	55	494
Nondefense	471	10	.....	–6	4	475
Subtotal, discretionary	910	50	.....	9	59	968
Mandatory:						
Social Security	510	—*	5	3	8	519
Other programs	799	6	—*	–3	2	801
Subtotal, mandatory	1,309	6	5	—*	11	1,320
Net interest	178	1	3	2	6	184
Total outlays	2,397	57	8	11	75	2,472

* \$500 million or less.

Table 20-3. COMPARISON OF THE ACTUAL 2005 DEFICIT WITH THE INITIAL CURRENT SERVICES ESTIMATE

(In billions)

	Current Services (Feb. 2004)	Changes				Actual
		Policy	Economic	Technical	Total changes	
Receipts	2,037	-14	-3	134	117	2,154
Outlays	2,397	57	8	11	75	2,472
Deficit	360	71	11	-123	-42	318

Note: Deficit changes are outlays minus receipts. For these changes, a plus indicates an increase in the deficit.

tions Acts in 2004, increased agricultural outlays by \$3 billion. In addition, child tax credit outlays increased by \$2 billion due to enactment of the Working Families Tax Relief Act of 2004. The remaining \$1 billion increase largely consists of tobacco payments and higher outlays for other mandatory programs, partially offset by the extension of expiring Customs user fees and a delay in obligations by the Crime Victims Fund. Debt service costs increased by \$1 billion due to outlay and revenue policy changes.

Economic conditions that differed from those forecast in February 2004 resulted in a net increase in outlays of \$8 billion. The most significant changes consist of a \$5 billion increase in Social Security benefits largely resulting from higher cost-of-living adjustments and a \$3 billion increase in net interest due to higher-than-expected interest rates.

Technical estimating differences and other changes resulted in a net increase in outlays of \$11 billion. Technical changes result from changes in such factors as the number of beneficiaries for entitlement programs, crop conditions, or other factors not associated with policy changes or economic conditions. Outlays for discretionary programs increased an estimated \$9 billion because budget authority for defense programs was spent faster than expected, partially offset by slower-than-expected outlays for nondefense programs. The technical outlay change for mandatory programs netted to a decrease of less than \$500 million. Higher-than-anticipated outlays for higher-education programs, Medicare, and other mandatory programs were slightly more than offset by lower-than-anticipated outlays for unemployment compensation and other programs. Net interest outlays increased by \$2 billion due to technical factors compared to the February 2004 estimates.

Deficit

The preceding two sections discussed the differences between the initial current services estimates and the actual amounts of Federal Government receipts and outlays for 2005. This section combines these effects to show the net impact of these differences.

As shown in Table 20-3, the 2005 current services deficit was initially estimated to be \$360 billion. The actual deficit was \$318 billion, which was a \$42 billion decrease from the initial estimate. Receipts were \$117 billion more than the initial estimate and outlays were \$75 billion more. The table shows the distribution of

the changes according to the categories in the preceding two sections.

The net effect of policy changes for receipts and outlays increased the deficit by \$71 billion. Economic conditions that differed from the initial assumptions in February 2004 accounted for an estimated \$11 billion increase in the deficit. Technical factors reduced the deficit by an estimated \$123 billion.

Comparison of the Actual and Estimated Outlays Outlays for Mandatory and Related Programs Programs for 2005

This section compares the original 2005 outlay estimates for mandatory and related programs under current law in the 2005 Budget (February 2004) with the actual outlays. Major examples of these programs include Social Security and Medicare benefits for the elderly, agricultural price support payments to farmers, and deposit insurance for banks and thrift institutions. This category also includes net interest outlays and undistributed offsetting receipts.

A number of factors may cause differences between the amounts estimated in the budget and the actual mandatory outlays. For example, legislation may change benefit rates or coverage; the actual number of beneficiaries may differ from the number estimated; or economic conditions (such as inflation or interest rates) may differ from what was assumed in making the original estimates.

Table 20-4 shows the differences between the actual outlays for these programs in 2005 and the amounts originally estimated in the 2005 Budget, based on laws in effect at that time. Actual outlays for mandatory spending and net interest in 2005 were \$1,504 billion, which was \$17 billion more than the initial estimate of \$1,487 billion, based on existing law in February 2004.

As table 20-4 shows, actual outlays for mandatory human resources programs were \$1,363 billion, \$16 billion more than originally estimated. This increase was the net effect of legislative action, differences between actual and assumed economic conditions, differences between the anticipated and actual number of beneficiaries, and other technical differences. Outlays for other functions were \$3 billion less than originally estimated. Undistributed offsetting receipts were \$3 billion higher than expected, thus reducing total outlays.

Table 20–4. COMPARISON OF ACTUAL AND ESTIMATED OUTLAYS FOR MANDATORY AND RELATED PROGRAMS UNDER CURRENT LAW

(In billions of dollars)

	2005		
	Feb. 2005 estimate	Actual	Change
Mandatory outlays:			
Human resources programs:			
Education, training, employment, and social services	11	18	8
Health:			
Medicaid	183	182	–1
Other	19	18	–*
Total health	202	200	–2
Medicare	290	294	5
Income security:			
Retirement and disability	99	100	1
Unemployment compensation	41	32	–8
Food and nutrition assistance	43	45	2
Other	112	114	2
Total, income security	295	292	–3
Social security	510	519	8
Veterans benefits and services:			
Income security for veterans	37	36	–1
Other	2	4	1
Total veterans benefits and services	39	40	1
Total mandatory human resources programs	1,347	1,363	16
Other functions:			
Agriculture	17	21	4
International	–2	–4	–2
Deposit insurance	–2	–1	*
Other functions	12	7	–5
Total, other functions	25	22	–3
Undistributed offsetting receipts:			
Employer share, employee retirement	–57	–59	–2
Rents and royalties on the outer continental shelf	–5	–6	–1
Other undistributed offsetting receipts	–*	–*	–*
Total undistributed offsetting receipts	–62	–65	–3
Total, mandatory	1,309	1,320	11
Net interest:			
Interest on Treasury debt securities (gross)	350	352	2
Interest received by trust funds	–161	–161	–*
Other interest	–11	–7	4
Total net interest	178	184	6
Total outlays for mandatory and net interest	1,487	1,504	17

* \$500 million or less.

Outlays for net interest were \$184 billion, or \$6 billion more than the original estimate. This increase was the net effect of changes in interest rates from those initially assumed, changes in borrowing requirements due to differences in surpluses, and technical factors.

Reconciliation of Differences with Amounts Published by Treasury for 2005

Table 20–5 provides a reconciliation of the receipts, outlays, and deficit totals published by the Department

of the Treasury in the September 2005 Monthly Treasury Statement and those published in this Budget. The Department of the Treasury made adjustments to the estimates for the Combined Statement of Receipts, Outlays, and Balances, which decreased receipts and outlays by \$977 million and \$1,125 million, respectively. Most of this adjustment was the correction of reporting for the unemployment insurance program. Additional adjustments for this Budget increased receipts by \$531 million and outlays by \$409 million. Several financial

Table 20-5. RECONCILIATION OF FINAL AMOUNTS FOR 2005

(In millions of dollars)

	Receipts	Outlays	Deficit
Totals published by Treasury (September 30 MTS)	2,154,305	2,472,920	-318,615
Miscellaneous Treasury adjustments	-977	-1,125	148
Totals published by Treasury in Combined Statement	2,153,328	2,471,796	-318,468
Affordable Housing Program	232	198	34
Exchange Stabilization Fund		-169	169
Public Company Accounting Oversight Board	130	130	
National Railroad Retirement Investment Trust		70	-70
United Mine Workers of America benefit funds	125	125	
Other	44	55	-11
Total adjustments, net	531	409	122
Totals in the budget	2,153,859	2,472,205	-318,346
MEMORANDUM:			
Total change since year-end statement	-446	-715	269

transactions that are not reported to the Department of the Treasury, including those for the Affordable Housing Program, the Public Company Accounting Oversight Board, and the United Mine Workers of America benefit funds, are included in the budget. Other significant conceptual differences in reporting are for the National Railroad Retirement Investment Trust (NRRIT) and the Exchange Stabilization Fund. Reporting to the Department of the Treasury for the NRRIT

is done with a one month lag so that the fiscal year total provided in the Treasury Combined Statement covers September 2004 through August 2005. The budget has been adjusted to reflect transactions that occurred during the actual fiscal year, which begins in October. For the Exchange Stabilization Fund, reporting for the budget excludes the gains and losses in the valuation of foreign currencies held in the fund.

Part II: HISTORICAL COMPARISON OF ACTUAL TO ESTIMATED SURPLUSES OR DEFICITS

This part of the chapter compares estimated surpluses or deficits to actual outcomes over the last two decades. The first section compares the estimate for the budget year of each budget with the subsequent actual result. The second section extends the comparison to the estimated surpluses or deficits for each year of the budget window: that is, for the current year through the fourth year following the budget year. This part concludes with some observations on the historical record of estimates of the surplus or deficit versus the subsequent actual outcomes.

Historical Comparison of Actual to Estimated Results for the Budget Year

Table 20-6 compares the estimated and actual surpluses or deficits since the deficit estimated for 1982 in the 1982 Budget. The estimated surpluses or deficits for each budget include the Administration's policy proposals. Therefore, the original deficit estimate for 2005 differs from that shown in Table 20-3, which is on a current services basis. Earlier comparisons of actual and estimated surpluses or deficits were on a policy basis, so for consistency the figures in Table 20-6 are on this basis.

On average, the estimates for the budget year underestimated actual deficits (or overestimated actual surpluses) by \$27 billion over the 24-year period. Policy outcomes that differed from the original proposals increased the deficit by an average of \$30 billion. Dif-

ferences between economic assumptions and actual economic performance increased the deficit an average of \$12 billion. Differences due to these two factors were partly offset by technical revisions, which reduced the deficit an average of \$15 billion.

The relatively small average difference between actual and estimated deficits conceals a wide variation in the differences from budget to budget. The differences ranged from a \$389 billion underestimate of the deficit to a \$190 billion overestimate. The \$389 billion underestimate, in the 2002 Budget, was due largely to receipt shortfalls related to the 2001 recession and associated weak stock market performance. About a quarter of the underestimate was due to increased spending for recovery from the September 11, 2001 terrorist attacks, homeland security measures, and the war against terror, along with lower receipts due to tax relief in the March 2002 economic stimulus act. The \$190 billion overestimate of the deficit in the 1998 Budget stemmed largely from stronger-than-expected economic growth and a surge in individual income tax collections beyond that accounted for by economic factors.

Because the average deficit difference obscures the degree of under- and overestimation in the historical data, a more appropriate statistic to measure the magnitude of the differences is the average absolute difference. This statistic measures the difference without regard to whether it was an under- or overestimate.

Table 20-6. COMPARISON OF ESTIMATED AND ACTUAL SURPLUSES OR DEFICITS SINCE 1982

(In billions of dollars)

Budget	Surplus or deficit (–) estimated for budget year ¹	Differences due to			Total difference	Actual surplus or deficit(–)
		Enacted legislation	Economic factors	Technical factors		
1982	–62	15	–70	–11	–66	–128
1983	–107	–12	–67	–22	–101	–208
1984	–203	–21	38	–0	17	–185
1985	–195	–12	–17	12	–17	–212
1986	–180	–8	–27	–7	–41	–221
1987	–144	2	–16	8	–6	–150
1988	–111	–9	–19	–16	–44	–155
1989	–130	–22	10	–11	–23	–153
1990	–91	–21	–31	–79	–131	–221
1991	–63	21	–85	–143	–206	–269
1992	–281	–36	–21	48	–9	–290
1993	–350	–8	–13	115	95	–255
1994	–264	–8	16	52	61	–203
1995	–165	–18	1	18	1	–164
1996	–197	6	53	30	89	–107
1997	–140	1	–4	121	118	–22
1998	–121	–9	48	151	190	69
1999	10	–22	56	82	116	126
2000	117	–42	88	73	119	236
2001	184	–129	32	41	–56	128
2002	231	–104	–201	–84	–389	–158
2003	–80	–86	–34	–177	–297	–378
2004	–307	–122	–22	39	–105	–412
2005	–364	–67	–11	123	45	–318
Average		–30	–12	15	–27	
Absolute average ²		33	41	61	98	
Standard deviation		42	58	80	134	

¹ Surplus or deficit estimate includes the effect of the budget's policy proposals.² Absolute average is the average without regard to sign.

Since 1982, the average absolute difference has been \$98 billion.

Another measure of variability is the standard deviation. This statistic measures the dispersion of the data around the average value. The standard deviation of the deficit differences since 1982 is \$134 billion. Like the average absolute difference, this measure illustrates the high degree of variation in the difference between estimates and actual deficits.

The large variability in errors in estimates of the surplus or deficit for the budget year underscores the inherent uncertainties in estimating the future path of the Federal budget. Some estimating errors are unavoidable, because of differences between the President's original budget proposals and the legislation that Congress subsequently enacts. Occasionally such differences are huge, such as additional appropriations for disaster recovery, homeland security, and war efforts in response to the terrorist attacks of September 11, 2001, which were obviously not envisioned in the President's Budget submitted the previous February. Even aside from differences in policy outcomes, errors in budget estimates can arise from new economic developments, unexpected changes in program costs, shifts in taxpayer behavior, and other factors. The budget impact of changes in economic assumptions is discussed further in Chapter 12 of this volume, "Economic Assumptions."

Five-Year Comparison of Actual to Estimated Surpluses or Deficits

The substantial differences between actual surpluses or deficits and the budget year estimates made less than two years earlier raises questions about the degree of variability for estimates of years beyond the budget year. Table 20-7 shows the summary statistics for the differences for the current year (CY), budget year (BY), and the four succeeding years (BY+1 through BY+4). These are the years that are required to be estimated in the budget by the Budget Enforcement Act of 1990.

On average, the budget estimates since 1982 overstated the deficit in the current year by \$20 billion, but underestimated the deficit in the budget year by \$27 billion. The budget estimates understated the deficit in the years following, by amounts growing from \$63 billion for BY+1 to \$121 billion for BY+4. While these results suggest a tendency to underestimate deficits toward the end of the budget horizon, the averages are not statistically different from zero in light of the high variation in the data.

The average absolute difference between estimated and actual deficits grows dramatically over the six years from CY through BY+4, from \$53 billion in the current year to \$98 billion for the budget year, to \$255 billion for BY+4. While under- and overestimates of the deficit have historically tended to average out, the

Table 20-7. DIFFERENCES BETWEEN ESTIMATED AND ACTUAL SURPLUSES OR DEFICITS FOR FIVE-YEAR BUDGET ESTIMATES SINCE 1982

(In billions of dollars)

	Current year estimate	Budget year estimate	Estimate for budget year plus			
			One year (BY+1)	Two years (BY+2)	Three years (BY+3)	Four years (BY+4)
Average difference ¹	20	-27	-63	-99	-118	-121
Average absolute difference ²	53	98	153	210	240	255
Standard deviation	65	134	206	254	273	281

¹ A positive figure represents an underestimate of the surplus or an overestimate of the deficit.² Average absolute difference is the difference without regard to sign.

absolute size of the under- or overestimates grows as the estimates extend further into the future. The standard deviation of the deficit differences shows the same pattern. The standard deviation grows from \$65 billion for current year estimates to \$134 billion for the budget year estimates and continues to increase steadily as the estimates extend further out, reaching \$281 billion for BY+4.

The estimates of variability in the difference between estimated and actual deficits can be used to construct a range of uncertainty around a given set of estimates.

Statistically, if these differences are normally distributed, the actual deficit will be within a range of two standard deviations above or below the estimate about 90 percent of the time. Chart 20-1 shows this range of two standard deviations applied to the deficit estimates in this Budget. This chart illustrates that unforeseen economic developments, policy outcomes, or other factors could give rise to large swings in the deficit estimates.

Chart 20-1. Illustrative Range of Budget Outcomes

Surplus(+)/deficit(-) in billions of dollars



